by averaging a most recent V-V interval duration [and] with a stored previously-computed value of the first indicated pacing interval; and

providing pacing therapy, based on the first indicated pacing interval.

28. (Amended) A method, including:

detecting an atrial tachyarrhythmia;

obtaining V-V intervals between ventricular beats;

computing a first indicated pacing interval [from] by averaging a most recent V-V interval duration [and] with a previous value of the first indicated pacing interval; and

providing pacing therapy, based on the first indicated pacing interval, when the atrial tachyarrhythmia is present.

58. (Amended) A cardiac rhythm management system, including:

a ventricular sensing circuit for sensing ventricular beats;

a controller, obtaining V-V intervals between ventricular beats and [recursively] computing a first indicated pacing interval, for a most recent V-V interval concluded by a paced beat and for a most recent V-V interval concluded by a sensed beat, [using] by averaging a most recent V-V interval duration [and] with a stored previously-computed value of the first indicated pacing interval; and

a ventricular therapy circuit, providing pacing therapy based on the first indicated pacing interval.

63. (Amended) A cardiac rhythm management system, including:

a ventricular sensing circuit;

a controller, the controller including:

a V-V interval timer;

a first register, for storing a first indicated pacing interval;

a filter, [recursively] updating the first indicated pacing interval, for a most recent V-V interval concluded by a paced beat and for a most recent V-V interval concluded by a sensed beat, [using] by averaging the most recent V-V interval stored in the V-V interval timer [and] with the previously-computed stored value of first indicated pacing interval stored in the first register; and

a ventricular therapy circuit, providing pacing therapy based at least partially on the first indicated pacing interval.

91. (Amended) A cardiac rhythm management system, including:

a ventricular sensing circuit;

a controller, the controller including:

a V-V interval timer;

a first register, for storing a first indicated pacing interval;

means for [recursively] updating the first indicated pacing interval, for a most recent V-V interval concluded by a paced and for a most recent V-V interval concluded by a sensed beat, [using] by averaging a most recent V-V interval duration [and] with a stored previously-computed value of the first indicated pacing interval; and

a ventricular therapy circuit, providing pacing therapy based at least partially on the first indicated pacing interval.